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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/398,378	09/17/1999	LEONARD CORNING LAHEY	BO9-99-030	1012

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KONRAD RAYNES VICTOR & MANN, LLP
315 SOUTH BEVERLY DRIVE
SUITE 210
BEVERLY HILLS, CA 90212

EXAMINER
BACHNER, REBECCA M

ART UNIT	PAPER NUMBER
3623	

DATE MAILED: 07/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/398,378	LAHEY ET AL.	
	Examiner	Art Unit	
	Rebecca M Bachner	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 April 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *7,19 and 31* is/are allowed.

6)☒ Claim(s) *1-6,8-18,20-30 and 32-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 13 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Detailed Action

Continued Prosecution Application

The request filed on April 24, 2003 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/398,378 is acceptable and a CPA has been established. An action on the CPA follows.

Allowable Subject Matter

1. Claims 7, 19, and 31 as rewritten to include the independent claims are now allowable. Claims 7, 19, and 31, are allowable as none of the art cited individually or in combination teaches performing and determining error recovery with notifying, processing and modifying the signal and status of the work process.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 10, 12-16, 22, 24-28, 34, and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Srinivasan (P.N. 5,548,506).

(Amended) As per claims 1, 13, and 25, Srinivasan discloses a method, a system, and an article of manufacture, for processing a job, comprising:

generating a signal when status for the job is changed from a first status to a second status, wherein each status for the job is associated with a single work process for processing the job among multiple work processes and wherein each status describes processing to be performed on the job (see figures 6-7, abstract, and column 6, lines 10-17, the inform module informs leaders of the completion of a job and changes the status of a job associated with a work process, the status is changed from a working status to a completed status);

identifying a work process for processing the job based on the second status (see figures 6-7, column 3, lines 6-17, and column 5, lines 31-36, the tasks have interdependencies and a task, or job, is processed, or begun, based on the status of the previous task or job);

notifying the work process associated with the second status that one job had its status changed to the second status in response to the signal (see column 6, lines 10-17, the task leader is informed of the status change through the project update module);

processing, with the work process, the job that had its status changed from the first status to the second status (see column 6, lines 10-17, the database is updated with the job status change); and

modifying, with the work process, the status of the job after completing the processing of the job (see figures 6-7, and column 6, lines 10-17, and 40-45, the status of the job is modified after the job is completed).

As per claims 2, 14, and 26, Srinivasan discloses all the limitations of the method of claims 1, 13, and 25, wherein the signal is transmitted to a routing process and indicates the second status, further comprising:

processing with the routing process a mapping associating each status with one work process in response to receiving the signal (see column 5, lines 31-36, column 6, lines 4-17, and 40-45, and column 7, lines 32-67, the dependent tasks are begun when the task is completed and the module signals are updated, the mapping for the completion of the jobs, or tasks, is determined each time a job has a completed status); and

determining from the mapping one work process associated with the second status, wherein the determined work process is notified of the job (see figures 6-7, column 5, lines 31-36, column 6, lines 4-17, and 40-45, and column 7, lines 32-67, the mapping is determined as the dependent work processes begin after the last job is finished).

As per claim 3, 15, 27, Srinivasan discloses all the limitations of the method of claims 1, 13, and 25 wherein job status is maintained in a database table including information on the job, further comprising maintaining, with the work process, a

connection with the database that enables communication with the database table, wherein modifying the status of the job after completing processing comprises updating the status of the job to an output status associated with another work process, and wherein updating the status with the output status generates the signal indicating a change in status (see column 6, lines 1-17, the database is updated when the job is finished).

As per claims 4, 16, and 28, Srinivasan discloses all the limitations of the method of claims 1, 13, and 25, wherein the signal is generated by an event trigger in the database that responds to an update to the status of the job in the database table (see figures 6-7, and column 6, lines 4-17, the progress report is generated when the job status is completed and the database is updated).

As per claims 10, 22, and 34, Srinivasan discloses all the limitations of the method of claims 1, 13, and 25 wherein the job comprises a data file, wherein at least one work process processes the data file to alter its format and at least one other work process processes the data file in the altered format to transmit the work process to an output device (see figures 1, 5-7, and column 5, lines 23-39, column 6, lines 4-17, and column 7, lines 62-67, through column 8, lines 1-5, the data file is altered when the job status is changes and the changes status is indicated on the outputted reports).

As per claims 12, 24, and 36, Srinivasan discloses all the limitations of the method of claims 1, 13, and 25, further comprising:

adding a status update to a list providing status updates for each job (see column 6, lines 4-17, the status is updated for each job); and

using the list to determine how the job has been processed by the work processes (see column 6, lines 4-17, the database is used to determine what job the work processes completed).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 5-6, 8-9, 11, 17-18, 20-21, 23, 29-30, 32-33, and 35, are rejected under 35 U.S.C. 103(a) as being unpatentable over Srinivasan.

As per claims 5, 17, and 29, Srinivasan discloses all the limitations of the method of claims 4, 16, and 28, Srinivasan discloses updating the job status (see figures 6-7, and column 6, lines 4-17, and column 7, lines 32-67) and informing managers and project leads of changes in the status of the jobs (see column 7, lines 26-34, and 56-161). Srinivasan does not explicitly disclose wherein there are multiple work processes each associated with one input status and at least one output status, wherein each worker is enabled to update the job status with one associated output status after completing the processing of the job, wherein the output status for one worker is the input status associated with one other worker, and wherein the definition of input and output statuses for workers defines the workflow of the job. However, it is old and well known to associate the job with the worker and therefore enable the worker to update the job status when a project is completed. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to disclose a worker associated

with a job and enabling the worker to update the job status as workers would be needed to process the various tasks and informing the workers of the jobs and changing status of the jobs improves the efficiency of the project.

As per claims 6, 18, and 30, Srinivasan discloses all the limitations of the method of claim 3, 15, and 27, further comprising the work process performing:

determining whether the work process completed processing the job successfully (see figure 5, and column 6, lines 4-17, it is determined if the work process completed successfully).

updating the status of the job, wherein the status of the job is updated with one output status associated with the work process if the job work process completed processing the job successfully (see column 6, lines 4-17, and column 7, lines 62-67, the status of the job is updated when the work process is completed).

Srinivasan does not explicitly disclose an error status if the work process did not complete processing the job successfully. However, it is old and well known in the art to have an error status or error message appear if a work process or job is not completed successfully. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention for Srinivasan to disclose an error status if the work process did not complete successfully as it would reliably inform the managers and project leads that the work process needs attention and they could efficiently fix the problem.

(Amended) As per claims 8, 20, and 32, Srinivasan discloses all the limitations of the method of claim 3, 15, and 27.

querying the database table for jobs having the status associated with the work process (see column 6, lines 4-17, the database stores information regarding the status of the workflow);

processing the jobs having the status associated with the work process (see figures 5-6, and column 6, lines 4-17, the jobs are processed that have the status associated with the appropriate work processes); and

querying the database table for additional jobs (see figures 4-9, and column 6, lines 4-17, the database is used to determine the next jobs to be performed).

Srinivasan discloses processing the various tasks in the database until all the work processes and jobs are completed (see figures 5-9). Srinivasan does not explicitly disclose terminating processing of the database table if there are no further jobs in the database table having the status associated with the work process. However, it is old and well known in the art to terminate a database table when there are no further jobs pending. Therefore, it would be obvious for one of ordinary skill in the art to have Srinivasan disclose terminating a database table when there are no further jobs pending as it allows the workflow process to accurately and efficiently end when the work processes and jobs are complete.

As per claims 9, 21, and 33, Srinivasan discloses all the limitations of the method of claims 8, 20, and 32, wherein the work process spawns a work thread to process one job in the database table having the status associated with the work process, wherein the work process is capable of spawning multiple work threads to process different jobs having the status associated with the work process (see column 5, lines 31-36, there can multiple dependent work processes from a single work process).

As per claims 11, 23, and 35, Srinivasan discloses all the limitations of the method of claims 10, 22, and 34. Srinivasan discloses processing different jobs at different times as the jobs maybe dependent upon one another (see column 5, lines 31-36). Srinivasan does not explicitly disclose wherein at least two workers process the job at different devices in communication over a network, further comprising accessing the job from another device over the network to process the job at the device on which that worker executes. However, it is old and well known in the art to disclose workers processing jobs at different devices over a network where the job is accessed from another device over the network. Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention to disclose processing the job at different devices over a communications network as it allows the workers processing the jobs to be more flexible and easily communicate with other devices.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Rebecca Bachner** whose telephone number is 703-305-1872. The examiner can normally be reached on Monday - Friday from 8:30am to 5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Tariq Hafiz** can be reached on **(703)305-9643**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Receptionist** whose telephone number is **(703) 308-1113**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington D.C. 20231

or faxed to:

(703) 305-7687	Official communications; including After Final communications labeled "Box AF"
(703) 746-7306	Informal/Draft communications, labeled "PROPOSED" or " DRAFT"

Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive, Arlington, VA, 7th floor receptionist.

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RMB
July 9, 2003

Susanna Diaz
Susanna Diaz
Patent Examiner
Art Unit 3623